

CLAIMS

1. A foil-decorating sheet comprised by a laminated film of two or more kinds of films which is to be set in an injection mold for being integrally bonded to a surface of a molding resin, wherein after a foil-decorating is made, a bonding surface-side film of the laminated film which is on a side of a surface to be bonded to the molding resin has a peel strength of not less than 1 kgf / inch width at least at an interface between the molding resin and the bonding surface-side film of the laminated film bonded to the molding resin, and wherein at least a transparent acrylic film which comprises only acrylic resin as its main component is laminated on the bonding surface-side film bonded to the molding resin, with a decorative layer formed between the acrylic film and the bonding surface-side film bonded to the molding resin.

2. A foil-decorating sheet comprised by a laminated film of two or more kinds of films which is to be set in an injection mold for being integrally bonded to a surface of a molding resin, wherein after a foil-decorating is made, a bonding surface-side film of the laminated film which is on a side of a surface to be bonded to the molding resin has a peel strength of not less than 1 kgf / inch width at least at an interface between the molding resin and the bonding surface-side film of the laminated film bonded to the molding resin, and wherein at least a transparent

polycarbonate film which comprises polybutyleneterephthalate resin is laminated on the bonding surface-side film bonded to the molding resin, with a decorative layer formed between the acrylic film and the bonding surface-side film bonded to the molding resin.

3. A foil-decorating sheet comprised by a laminated film of two or more kinds of films which is to be set in an injection mold for being integrally bonded to a surface of a molding resin, wherein after a foil-decorating is made, a bonding surface-side film of the laminated film which is on a side of a surface to be bonded to the molding resin has a peel strength of not less than 1 kgf / inch width at least at an interface between the molding resin and the bonding surface-side film of the laminated film bonded to the molding resin, and wherein at least a transparent acrylic film is laminated on the bonding surface-side film bonded to the molding resin, with a decorative layer formed between the acrylic film and the bonding surface-side film bonded to the molding resin, wherein when a tensile test is carried out with a test specimen, 80 mm wide, of the foil-decorating sheet held between a pair of chucks fixed at a distance of 100 mm between opposite chuck end edges of the chucks, by applying a load at constant rate of 100 mm / min to the test specimen at one end thereof under an ambient temperature condition of 110°C, the test specimen exhibits a tensile elongation at break of not less than 150%.

4. A foil-decorating sheet as defined in claim 3, wherein within a range of up to an upper limit of tensile elongation at break of the laminated film, constituent films of the laminated film have an applied load difference within a range of up to 5.0 kg maximum in their respective elongation values.
5. A foil-decorating sheet as defined in claim 3, wherein the sheet has a portion which is capable of being elongated more than 200% in unit area to preform a three-dimensional configuration.
6. A foil-decorating sheet as defined in claim 1, wherein the bonding surface-side film of the laminated film which is bonded to the molding resin is a polypropylene film.
7. A foil-decorating sheet as defined in claim 6, wherein the polypropylene film is formed of a non-crystalline or low-crystalline polypropylene resin having crystallinity of 50% or less.
8. A foil-decorating sheet as defined in claim 6, wherein the polypropylene film is comprised of a soft polypropylene resin polymerized by a metallocene catalyst.
9. A foil-decorating sheet as defined in claim 1, wherein the bonding surface-side film of the laminated film which is bonded to the molding resin is an acrylonitrile butadiene-styrene film.
10. A foil-decorating sheet as defined in claim 9,

wherein a proportion of a butadiene content in a copolymerization ratio of the acrylonitrile butadiene-styrene film is 20 to 50% by weight.

11. A method of producing a foil-decorated resin molded article which comprises: setting in the injection mold the three-dimensionally preformed foil-decorating sheet as defined in claim 1; clamping the mold; injecting a molding resin mass in molten state into a cavity; and solidifying the molding resin to form a resin molded article and simultaneously therewith causing the foil-decorating sheet to go into integral bond with a surface of the resin molded article.

12. A method of producing a foil-decorated resin molded article which comprises: setting in the injection mold the foil-decorating sheet as defined in claim 1; preforming the sheet three-dimensionally within the mold; then clamping the mold; injecting a molding resin mass in molten state into a cavity; and solidifying the molding resin to form a resin molded article and simultaneously therewith, causing the foil-decorating sheet to go into integral bond with a surface of the resin molded article.